ground by mentioning the fact that among the Theromorpha four distinct types of reptiles are included, which are considered to form four orders, *i.e.* the Pareiasauri, the Theriodontia, the Anomodontia (Dicynodontia), and the Placodontia.

The first of these divisions includes what seem to be basal forms. These reptiles show numerous points of likeness to the Amphibian Labyrinthodonts.[1] On the other hand the third division, that of the Dicynodontia, are highly specialised Theromorpha, from which no further evolution would appear to have been possible. Thus the dentition was either completely lost, or reduced to tusks as in *Dicynodon.* We need not therefore concern ourselves in the present volume with these Anomodonts. It is with the Theriodonts that our business lies. The very name, be it observed, is aptly chosen on the hypothesis to be explained here ; but it is not only in the teeth that these reptiles show likenesses to the Theria or Mammals, but in almost every feature of their organisation. Unlike other reptiles, the Theromorpha in general were lifted comparatively high above the ground on legs of fair length and of mammalian relationship in the position of the segments of the limbs. The typical reptile grovels upon the earth with legs sprawling out, as indeed the very name suggests. One bar to the Theriodonts being on the direct line of mammalian ancestry has been urged as a preliminary difficulty, and that is their large size. The earliest undoubted mammals were small creatures, comparable to a Hat or a Mouse in size ; whereas a good-sized Bear or a Wolf is a better standard of size for some of the best-known genera of Theriodonts. It has, however, been quite permissibly suggested that living in company with these large Theriodonts were less obtrusive genera, from which the mammals might have sprung. It is so familiar a fact that a given group of animals generally contains giants, dwarfs, and members of intermediate size, that this suggestion may almost be accepted as a fact. It need at least present no difficulties to us in our comparisons.

The most salient " mammalian" feature of the Theriodonts is the heterodonty of the teeth, the pattern of the '* molars/' and the limited number which constitute the series. The fact, too, that they are limited to the dentary bones below and to the

[1] Of. vol. viii. p. 82.